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Bureaucratic Political Decision Making:
The Acquisition of Joint STARS

CORE COURSE THREE ESSAY

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Bureaucratic Political Decision Making:

The Acquisition of Joint STARS

This paper examines bureaucratic political decision making, defined by Allison as different players bargaining along regularized circuits, from which a particular course of action or resultant emerges that is distinct from what any of the players originally sought.¹ The decisions examined were made during the acquisition of the Air Force and Army's Joint Surveillance and Target Attack Radar System (Joint STARS). As methodology, the paper will test three theses that correspond with critical phases of the system's life span, comparing the actions of the predominate players in the decision making process: Congress; the Air Force; and Grumman Corporation, the Joint STARS primary contractor. The first thesis tested is that the Air Force fully supported the Joint STARS program and fought to keep Congress from cutting funding between 1985 and 1990. The second is that the Air Force's decision to send the system to the Gulf War was an effort to save the program from future funding cuts. The third thesis is that once the system had proven itself in combat, funding for full production was virtually assured. Before discussing each thesis, however, it is important to understand something of the system's background.

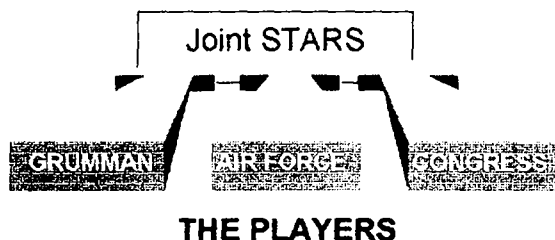
BACKGROUND. In 1976, a Defense Science Board study explored ideas for a precise conventional rather than a nuclear counterattack against a Warsaw Pact invasion of Europe. Wisdom of the day postulated that NATO would be forced to respond to a numerically superior Soviet invasion with tactical nuclear weapons. However, since 60 percent of the

theater's nuclear weapons had a range of less than 15 kilometers, meaning that nuclear destruction would take place predominately on German soil, deterrence was becoming less credible. The study looked for a way to increase conventional lethality through accurate targeting that would delay, disrupt, and destroy follow-on Warsaw Pact forces, obviating the need to "go nuclear" and revitalizing deterrence in the European theater. As a result, a requirement for a joint Air Force and Army airborne radar system "to detect, track, and guide accurate attacks against enemy ground movers in the second echelon" was established.²

This requirement evolved through a series of concepts until 1985, when Grumman won a five year, fixed price contract to develop for the Air Force an airborne radar platform and corresponding mobile ground receiver station known collectively as Joint STARS. From 1985 until 1990, however, Joint STARS came under increased scrutiny for cost and schedule overruns.³ Then, at the request of the Commander in Chief, U.S. Central Command, the system was pulled out of test in December 1990 and sent to the Gulf War. The Joint STARS platform flew 54 combat missions on 49 consecutive nights and performed so well that, after Desert Storm, the Air Force Chief of Staff stated, "I don't think the United States will ever want to go to a combat situation again without a Joint STARS-like system."⁴ Since its outstanding success, Congress not only fully funded system production, but also ordered the Department of Defense to double the aircraft production rate for FY94.⁵

THESIS ONE: ACQUISITION DECISIONS 1985 - 1990

With the system's background established, the paper will now turn to discussing bureaucratic decision making during the early years of system acquisition from



1985 until 1990. The thesis examined is that the Air Force fully supported the Joint STARS program and fought to keep the program alive when funding was jeopardized by defense budget draw downs. It will examine the interactions between Grumman, the Air Force, and Congress.

GRUMMAN. Grumman Corporation went from a company with \$110 million in earnings in 1983 at the height of the Reagan defense buildup to one loaded with debt and riddled with personnel cutbacks by 1990. For it, Joint STARS represented diversity from the airframe business and a potential \$10 billion in revenues that practically grew to mean corporate survival. Grumman's decision to pursue the Joint STARS contract was based on their need to diversify and the need to have financially successful programs.

Long known as a builder of Navy carrier based aircraft, Grumman began diversifying in the mid-1970s from "a company that made airplanes" to "a company that makes electronic systems, some of which have wings" according to the corporation's then-president John C. Bierwirth. An example of that diversification was their work between 1976 and 1985 with Hughes Corporation on the precursor to Joint STARS called "Assault Breaker" and "Pave Mover." When the Department of Defense finally settled on the Joint STARS concept in 1985, Grumman competed with Westinghouse and Hughes for the developmental contract. According to

Air Force sources, Grumman significantly underbid their competitors by as much as \$200 million to win the developmental project.⁶ Grumman apparently "bought-in" to the contract for one or a combination of the following: they planned on developing the system with their own money, knowing they could makeup with profits in the production phase;⁷ they significantly underestimated the technological extent of electronic integration required;⁸ they foresaw the importance of diversifying from the combat aircraft arena for corporate survival.⁹

By the late-1980s, Grumman's declining airframe business increased their stake in Joint STARS. For example, thinking it had new contracts sewn up for the A-6 and F-14 sales to the Navy, it increased debt 395 percent (to \$950 million) throughout the decade, while the interest on borrowings to modernize manufacturing and expand research grew from \$16 million in 1984 to \$60 million in 1987 (representing one third of its profits).¹⁰ Unfortunately, the Defense Department canceled future A-6 buys in 1988 and F-14 production the next year -- a significant blow to their Beth Page, New York plant -- despite tenacious support from New York Senators Moynihan and D'Amato. In addition, Grumman lost a bid for the Navy's new Advanced Tactical Aircraft in 1988, a move that "...may well be the decision that forced them out of the airframe business."¹¹ As their airframe business was declining, their dependence on merging technology programs such as Joint STARS increased.

THE AIR FORCE. While the Air Force was committed to the Joint STARS program, they were never enthusiastic supporters of it.

The Air Force and Army disagreed on the concept they wanted to pursue for attacking follow-on Soviet forces from 1976 until 1984. The Air Force's original concept was a penetrating fighter that would serve

as both a surveillance and weapons platform, while the Army's concept was a side looking airborne radar mounted on a helicopter that would target enemy forces for a tactical cruise missile.¹² The two services remained at odds over the type of surveillance platform and weapons system until 1984 when they reached a major joint agreement known as the "36 Initiatives," one of which was that the Air Force would develop and produce Joint STARS.¹³

From 1985 until the end of the decade, the Joint STARS program came under intense scrutiny due to several problems. First, the threat of a Soviet/Warsaw Pact invasion of Europe declined significantly, invalidating the original requirement for the system. Second, defense dollars across the board were decreasing, making competition for programs tense. These culminated into a third, overriding reason: the program faced up to \$400 million in shortfalls for parts, training equipment, and -- most significantly -- software development. Joint STARS was extremely software intensive, with over one million lines of code in its airborne operational computer program (more than the Space Shuttle, for example).¹⁴ According to the 1989 Congressional Quarterly Almanac, the Secretary of Defense ordered the Services to slow production startup of new systems with technical, budget, or scheduling problems.

In addition to potential funding problems, it was also evident that the Air Force did not totally embrace the Joint STARS program. First, the Air Force saw it as an unglamorous targeting platform for the Army. For example, from 1983 until 1989 Joint STARS appeared under "Ground Attack Systems" in the both the House and Senate Appropriations Committee discussions, and does not appear under Air Force programs or

aircraft. The wording in the reports describes it as the surveillance platform that would guide Army weapons toward their targets. In addition, an industry source indicated that Joint STARS funding competed with core Air Force fighter programs.¹⁵

From the Air Force perspective, the Joint STARS program had three significant disadvantages: it was having developmental problems, its purpose was to provide targeting for the Army, and it competed against other Air Force programs for limited defense dollars. According to Colonel Harry Heimple, Headquarters AFMC's Deputy Director for Requirements, while the Air Force was committed to the Joint STARS program, it was not entirely enthusiastic about it.¹⁶

Congress. A review of actions in both House and Senate Authorizations and Appropriations Committees from 1983 through 1990 shows that Congress was instrumental in the Joint STARS acquisition in two respects: forcing the Air Force and Army to work jointly on the program, and funding the program. And Congress supported the program, according to an influential Senate Appropriations Committee staffer, in order to keep Grumman from going out of business.¹⁷

Budget discussions reported by the Congressional Quarterly Almanac consistently indicate that Congress was openly critical of the Service's inability to work together on the Joint STARS concept. As early as 1983 several House committees were unhappy that the two Services continued to pursue separate surveillance platforms. Furthermore, both Congressional Appropriations Committees criticized the Services for going in separate directions until 1984. Conversely, once the Pentagon settled on a single concept for the surveillance platform, the Hill endorsed that

decision.¹⁸ As an Air Force officer put it, the entire joint Air Force-Army program was a "shot gun wedding" driven by Congress.

Congress continued to fund Joint STARS throughout the decade even though the program was having developmental problems and the European threat was declining. In FY87, for example, the Senate appropriated \$535 million for the program along with guidance to the Pentagon not reduce that amount in the course of across-the-board cuts in programs.¹⁹



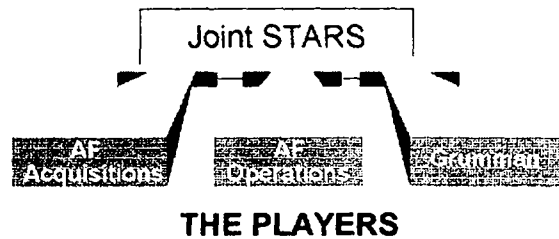
THE DECISION

CONCLUSION. The thesis examined in this section was that the Air Force fully supported the Joint STARS program from 1985 to 1989, and fought to keep the program alive through the budget draw downs. In fact, the Air Force did not enthusiastically support the program;

Grumman's corporate life depended to a great deal on the success of it; and Congress was instrumental in both forcing the Army and Air Force to develop the program jointly, as well as funding the program to keep Grumman alive.

THESIS TWO: DECISION TO GO TO THE GULF WAR

The second thesis is that the decision to pull Joint STARS out of deep test and send it to the Gulf War was an effort to save the program; in essence, the Air Force



was betting that the system was mature enough to function in the field and prove to opponents that it was a robust, viable system. The key players discussed are the Air Force's acquisition and operational communities and Grumman.

In September 1990, Joint STARS deployed to Europe to meet the contract's performance demonstration requirement. During six flight demonstrations, it participated in a VII Corps exercise, making an extremely favorable impression on Lieutenant General Franks, the corps commander. Consequently, when General Franks deployed VII Corps to Desert Shield, he recommended that the Commander-in-Chief, Central Command request the Joint Chiefs of Staff deploy the system to the Gulf.²⁰ Since the program was in deep test, the Joint Chiefs asked the Air Force if the system was capable of deploying and performing in an operational environment.

AIR FORCE ACQUISITIONS COMMUNITY. There was consternation within the acquisition community over taking the system out of deep test and placing it in an operational environment. First, there were obvious concerns about the lack of established operational tactics and logistics support procedures. There were also contractual concerns about having Grumman air and ground crews in the Gulf region. A third factor was the

overshadowing consideration that failure in the desert would break the program after the war. Nevertheless, the acquisition community's recommendation was to send the system to the Gulf. Colonel Willie E. Cole, Deputy System Program Director for Joint STARS, stated that the recommendation was a "balanced risk decision" governed by an overriding patriotic desire to answer the nation's call. According to Colonel Heimple, the community had complete confidence in the system's ability to perform the mission. It is interesting that the acquisition community would come to a decision that was completely contrary to their standard patterns of behavior, routine, and operating procedure.

AIR FORCE OPERATIONAL COMMUNITY. The Air Force operational community's recommendation, after considering the same arguments, was to keep Joint STARS in deep test. The overt rationale was that it was premature to send the system into an operational environment. However, according to industry and Air Force sources the underlying concern was that a successful performance would assure future program funding, which threatened the community's core fighter programs. It would not be unreasonable for the operational community's leaders to consider what they would have to give up by having the Joint STARS program continue. According to Colonel Heimple, the Army perceived the operational community's recommendation as the Air Force showing its "true colors" -- the Air Force did not want a successful performance for fear that it would then be saddled permanently with the Joint STARS albatross. As with the acquisition community's decision, it is equally interesting that the operational community would come to the decision not to support a warfighting commander, contrary to their standard patterns of behavior and culture.

GRUMMAN. The Grumman position was that the system should be sent to the desert. According to an industry source, Grumman engineers were totally confident in Joint STARS' ability to accomplish the mission and that it could and would perform well. Grumman management was concerned about the risk of failure, but they also realized that the declining European threat would be a sure end to the program, and recognized the opportunity to prove system viability.²¹

CONCLUSION. The thesis tested was partially correct. The acquisition community's recommendation to send a system in test status



THE DECISION

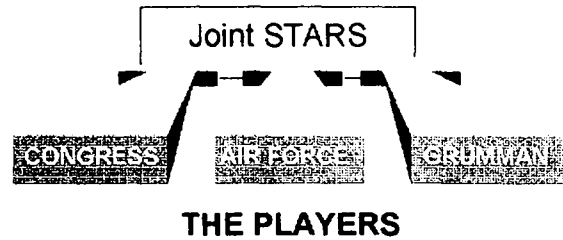
prematurely into an operational environment broke with their standard operating procedures; however, they were confident in the system's ability to perform. The operational community's recommendation to leave the system in test was driven by their fear of success and was made in contrast to their warfighting culture. Grumman's recommendation to send Joint STARS to the Gulf was due to confidence in the system and the need to save the program.

The Joint Chiefs of Staff agreed to honor Central Command's request and sent Joint STARS to Desert Shield in December 1990. Joint STARS's tremendous success during the Gulf War established the third thesis, discussed next.

THESIS THREE: POST GULF WAR FUNDING ASSURED

The paper's third thesis is that once Joint STARS proved itself in combat, its funding for production was virtually assured.

The primary players discussed are Congress, the Air Force, and Grumman.

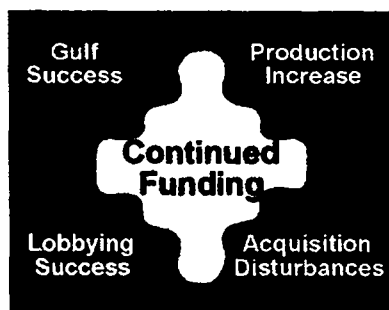


Congress. According to staffers of the House Armed Services Committee and the Senate Appropriations Committee, it was Joint STARS's performance during the Gulf War that saved it from certain funding cuts. Ross Lindholm, Legislative Assistant for Senator Mack (R-FL), stated that Joint STARS needed no active lobbying after its desert performance in order to assure that funding.²² One Senate Appropriations Committee staffer added that the Air Force's ability to translate a requirement for the European theater into a system that could perform in any regional conflict was also a key to Congressional support. As a result, Congress not only fully funded the program, but also ordered the Air Force to double the production of Joint STARS aircraft for FY94. When the Air Force subsequently tried to reduce production to its original number, the entire Florida delegation in the House intervened by sending a letter to Representative Dellums (Chairman, House Armed Services Committee) and Representative Spence (ranking minority member, House Armed Services Committee) citing the desert success, the expense of delaying the production, and the need to get the system into the field for military commanders.²³ The Air Force was directed to honor Congress's original order.

THE AIR FORCE. According to Colonel Cole, the Joint STARS aircraft production schedule was a classic acquisition build up. That is, production was to start slowly and increase as the manufacturer gained experience building the system. When Congress increased the production for FY94 from one to two aircraft, however, it did not also increase the Air Force's Table of Allowance, meaning that other acquisition programs being fielded that year would be in jeopardy. The Air Force wanted to reduce Joint STARS production for FY94 in order to smooth out other program flows.

Colonel Cole pointed out that there were industry jobs at stake over the issue. For example, a former Boeing plant in Louisiana was refurbishing and preparing Boeing 707 airframes that Grumman would then load the Joint STARS electronic gear into. The highly skilled jobs to refurbish airframes in Louisiana were scheduled to increase from 670 to 1000 in March 1994.

GRUMMAN. From Grumman's perspective, an industry source felt that the Gulf War assured Grumman of continued funding support, stating that the program would have died without its well-timed performance in the desert. He also stated that Grumman had "done their homework" when the issue of cutting production in FY94 came up.



THE DECISION

CONCLUSION. The third thesis is correct: Joint STARS's performance in the Gulf War assured its future funding. However, performance was not the sole reason. Congress continued supporting the program because it was now proven technology and subcontractors were located in several key states (airframe

refurbishing in Louisiana, electronic integration in Florida, electronic components from Arizona). Success in the Gulf changed senior Air Force officers' opinions of the program and ensured continued commitment to the program. Also, while it was still an unglamorous program by Air Force standards, the risks of failure had been substantially reduced by its desert performance. Finally, Grumman's task of convincing the Air Force and Congress of the program's viability was made easier after Desert Storm. However, continued defense budget draw downs meant that Grumman would still have to continue "doing its homework."

SUMMARY

This paper tested three theses concerning bureaucratic decision making that corresponded to critical phases of the Joint STARS acquisition process. Examined individually, the decisions of each player -- Congress, the Air Force, and Grumman Corporation -- can be viewed in terms of Allison's Rational Actor and Organizational Process models. However, when the decision making process of each thesis is studied in the context of various players bargaining and maneuvering along the same circuit, then Allison's model of bureaucratic politics emerges. The Joint STARS acquisition decisions produced a different resultant than what any of the players originally sought.²⁴

NOTES

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- 5 House Armed Services Committee staffer, personal interview, 8 Dec 93.
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